

PATENT COOPERATION TREATY

L.J. Search: 15.01.2006

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

PCT

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

| | | |
|---|--|---|
| | | Date of mailing (day/month/year) see form PCT/ISA/210 (second sheet) |
| Applicant's or agent's file reference see form PCT/ISA/220 | | FOR FURTHER ACTION See paragraph 2 below |
| International application No. PCT/EP2005/002487 ✓ | International filing date (day/month/year) 09.03.2005 ✓ | Priority date (day/month/year) 15.03.2004 ✓ |
| International Patent Classification (IPC) or both national classification and IPC F16J15/08, F16J15/28, F16J13/02, F27B5/06, B30B11/00 | | |
| Applicant TEKSID ALUMINUM S.R.L. ✓ | | |

1. This opinion contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/EP2005/002487

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - a sequence listing
 - table(s) related to the sequence listing
 - b. format of material:
 - in written format
 - in computer readable form
 - c. time of filing/furnishing:
 - contained in the international application as filed.
 - filed together with the international application in computer readable form.
 - furnished subsequently to this Authority for the purposes of search.
3. In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/EP2005/002487

**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or
industrial applicability; citations and explanations supporting such statement**

1. Statement

| | | | |
|-------------------------------|------|--------|------|
| Novelty (N) | Yes: | Claims | 1-11 |
| | No: | Claims | |
| Inventive step (IS) | Yes: | Claims | 1-11 |
| | No: | Claims | |
| Industrial applicability (IA) | Yes: | Claims | 1-11 |
| | No: | Claims | |

2. Citations and explanations

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

Re Item V.

**Reasoned statement with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

- 1 Reference is made to the following documents:

D1 : PATENT ABSTRACTS OF JAPAN

vol. 007, no. 183 (M-235),
12 August 1983 (1983-08-12)
& JP 58 084903 A
(KOBE SEIKOSHO KK),
21 May 1983 (1983-05-21)

- 1 Document D1, which is considered to represent the most relevant state of the art, discloses (the references in parentheses applying to this document):
A sealing apparatus for high-pressure and high- temperature processes, in particular for hot isostatic pressing processes, comprising:
- a container (1) for high pressures defining a volume adapted to contain a material (9) to be pressurised and provided with an inlet for the introduction of the material into said volume,
- a moving head (3) adapted hermetically to close the high pressure container (1), and
- a piston (7) mounted to slide in a leak-tight manner through the head (3) and moving between a retracted position and a forward position in which it places the inner volume of the container (1) under pressure,
- 1.1 From this, the subject-matter of independent claim 1 differs in that:
it comprises an auxiliary cover, which can be associated in a leak-tight manner with the inlet of the high-pressure container, in a position interposed between the container and the head, said cover being provided with an opening in which the piston can slide and coinable sealing means associated with the opening in order to provide a pressurised seal between the piston and the auxiliary cover in the position in which the moving head hermetically closes the container.
- 1.2 The subject-matter of claim 1 is therefore novel (Article 33(2) PCT).

The problem to be solved by the present invention may be regarded as how to improve the sealing apparatus in order to replace rapidly the seal when it is deteriorated and to have a good sealing ability as well as low cost of production.

- 1.3 The solution to this problem proposed in claim 1 of the present application is considered as involving an inventive step (Article 33(3) PCT) for the following reasons:
No prior art document provides any hint which would bring the skilled man to combine all the features present in claim 1, especially the combination of an auxiliary cover and a coinable sealing means together with a container according to D1.
- 2 The same reasoning applies, mutatis mutandis, to the subject-matter of the corresponding independent claim 11. Claim 11 is therefore also considered new and inventive.
- 3 Claim 8 is a method of use of an apparatus according to claim 1. As the product of claim 1 is new and inventive, its use is also considered to be new and inventive.
- 4 Claims 2-7 and 9-10 are respectively dependent on claims 1 and 8 and as such also meet the requirements of the PCT with respect to novelty and inventive step.

Re Item VII.

5 Certain defects in the international application

- 5.1 Contrary to the requirements of Rule 5.1 (a)(ii) PCT, the relevant background art disclosed in the document D1 is not mentioned in the description, nor are these documents identified therein.